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PTO/SB/21 (09-04)

Approved for use through 07/31/2006. OMB 0651-0031

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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

5

Application Number	10/657,605
Filing Date	09/08/2003
First Named Inventor	Huy M. Nguyen
Art Unit	2819
Examiner Name	Examiner Cho
Attorney Docket Number	RA311 (RA311.P.US)

ENCLOSURES (Check all that apply)

- | | | |
|--|--|--|
| <input checked="" type="checkbox"/> Fee Transmittal Form
<input checked="" type="checkbox"/> Fee Attached
Check # 1921
<input type="checkbox"/> Amendment/Reply
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<input type="checkbox"/> Affidavits/declaration(s)
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Incomplete Application
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under 37 CFR 1.52 or 1.53 | <input type="checkbox"/> Drawing(s)
<input type="checkbox"/> Licensing-related Papers
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<input type="checkbox"/> Petition to Convert to a
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below):
1. PTO/SB/08A (1 page).
2. PTO/SB/08B (1 page).
3. Copies of all articles cited on
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Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	Silicon Edge Law Group LLP, Arthur J. Behiel, Patent Attorney		
Signature			
Printed name	Arthur J. Behiel		
Date	1/5/2005	Reg. No.	39,603

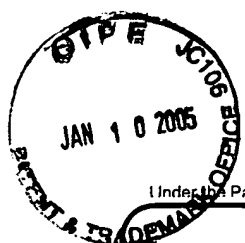
CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below:

Signature			
Typed or printed name	Laurie Moreno	Date	1/5/05

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Effective on 12/08/2004.

Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL
For FY 2005☐ Applicant claims small entity status. See 37 CFR 1.27TOTAL AMOUNT OF PAYMENT (\$)180.00**Complete if Known**

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First Named Inventor	Huy M. Nguyen
Examiner Name	Examiner Cho
Art Unit	2819
Attorney Docket No.	RA311 ERA311.P.USB

METHOD OF PAYMENT (check all that apply)☒ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____☐ Deposit Account Deposit Account Number: _____ Deposit Account Name: _____

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, **except for the filing fee**☐ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☐ Credit any overpayments**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)	Multiple Dependent Claims
- 20 or HP =	x	=		Fee (\$) Fee Paid (\$)

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
- 3 or HP =	x	=	

HP = highest number of independent claims paid for, if greater than 3.

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100 =	/ 50 =	(round up to a whole number) x	=	

4. OTHER FEE(S)

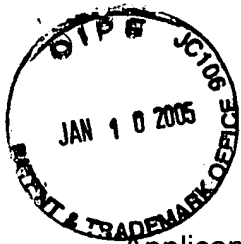
Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): 1806- Submission of an IDS \$180.00**SUBMITTED BY**

Signature		Registration No. (Attorney/Agent)	39,603	Telephone	925.621.213
Name (Print/Type)	Arthur J. Behiel	Date			

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Huy M. Nguyen, Vijay Gadde and Benedict Lau

Assignee: Rambus Inc.

Title: "Calibration Methods and Circuits for Optimized On-Die Termination"

Serial No.: 10/657,605 Filed: September 08, 2003

Examiner: Cho Tel: Unknown

Docket No.: RA311 Art Unit: 2819
(RA311.P.US)

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SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §1.56, §1.97 and §1.98, Applicant brings the 10 documents listed on the enclosed forms PTO/SB/08A (1 page) and PTO/SB/08B (1 page) to the Examiner's attention in the above-captioned application. Citation of the listed documents shall not be construed as:

1. an admission that the documents are necessarily prior art with respect to the instant application;
2. a representation that a search has been made; or
3. an admission that the information cited is, or is considered to be, material to patentability as defined in §1.56(b).

01/11/2005 EAREGAY1 00000021 10657605

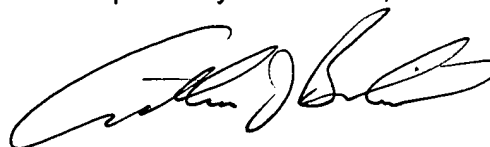
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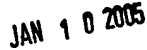
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1/5/09 
Date Laurie Moreno

Respectfully submitted,



Arthur J. Behiel
Attorney for Applicants
Reg. No. 39,603



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Institute for form 1449/PTO

(Use as many sheets as necessary)

Sheet	1	of	2
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Complete if Known

Application Number	10/657,605
Filing Date	September 08, 2003
First Named Inventor	Huy M. Nguyen
Art Unit	2819
Examiner Name	Examiner Cho
Attorney Docket Number	RA311 (RA311.P.US)

U. S. PATENT DOCUMENTS

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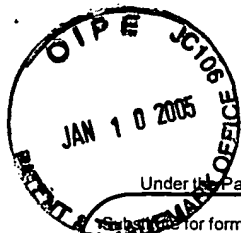
FOREIGN PATENT DOCUMENTS

[illegible]

Date	
Considered	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Complete if Known			
		Application Number	10/657,605		
		Filing Date	September 08, 2003		
		First Named Inventor	Huy M. Nguyen		
		Art Unit	2819		
		Examiner Name	Examiner Cho		
Sheet	2	of	2	Attorney Docket Number	RA311 (RA311.P.US)

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	4	GABARA, THADDEUS J. et al. "A 200 MHz 100K ECL Output Buffer for CMOS ASICs." 1990 IEEE. Pages 4.	
	5	GABARA, THADDEUS J., "On-Chip Terminating Resistors for High Speed ECL-CMOS Interfaces." February 1992. IEEE. Pages 292-295.	
	6	KNIGHT, THOMAS F. JR., "A Self-Terminating Low-Voltage Swing CMOS Output Driver." IEEE Journal of Solid-State Circuits, Vol. 23, No. 2, April 1988. pgs. 457-464.	
	7	GABARA, THADDEUS J., "Digitally Adjustable Resistors in CMOS for High-Performance Applications." IEEE Journal of Solid-State Circuits, Vol. 27, No. 8, Aug. 1992. Pgs. 1176-1185.	
	8	BABCOCK, J.A., "Precision Electrical Trimming of Very Low TCR Poly-SiGe Resistors." IEEE Electron Device Letters, Vol. 21, No. 6, June 2000. pgs. 283-285.	
	9	SHAH, SUNAY et al., "A Temperature Independent Trimmable Current Source." Department of Engineering Science, University of Oxford. ISCAS 2002. 4 pages.	
	10	KIM, SU-CHUL, "Programmable Digital On-Chip Terminator." ITC-CSCC, 2002. 4 pages.	

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

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